

CENTRAL STATES FOREST EXPERIMENT STATION

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PROGRESS REPORT - FOURTH QUARTER 1952 (October, November, December)

General.--The initial meeting of the Ohio Valley Section of the Forest Products Research Society was held at the University of Louisville October 2. F.U.S. has been active in the organization of this new section, which comprises all of Kentucky and that portion of Ohio and Indiana lying south of highway U.S. 40. Day also attended a conference at Purdue University on log quality indices. In November he participated in the joint S.A.F.-C.I.F. meeting in Montreal and the symposium on "Harvesting Pulpwood on Farms" held by the Northeastern Wood Utilization Council held in connection with that meeting. Early in December the Region Seven-F.U.S. Coordinating Committee met in Elkins, West Virginia. This annual conference provides regional office personnel an opportunity to discuss utilization problems bearing on the administration of National Forests with representatives of the Northeastern, Central, and Southeastern F.U.S. units, all three of which function within the region. The 1953 programs of the units were reviewed and a number of studies of particular interest to the region were incorporated in their work plans or will be submitted to the F.P.L. for consideration in their program. The Southeastern Station's proposal for a hickory utilization study received favorable consideration, and it was agreed that the time was right to push for this project which proposes a coordinated approach similar to the Lake States' aspen series and the beech utilization project of the Northeastern Station. Smith and Englerth of the Southeastern F.U.S. unit and Day spent one day with Weitzman, in charge of the Mountain States Research Center, on a tour of the Fernow Experimental Forest at Parsons, West Virginia.

Ohio Forestry, Logging, and Sawmilling Demonstration.--The largest and in many ways the most successful of the region-wide demonstrations was held October 15 and 16 at the Southeastern Substation of the Ohio Agricultural Experiment Station near Athens. Nearly sixty manufacturers, distributors, and dealers in the fields of forestry, logging, and sawmilling equipment exhibited and demonstrated their products under actual logging conditions. In addition educational exhibits and demonstrations in timber harvesting, wood preservation, and seasoning were carried out by the Ohio Division of Forestry, the Ohio Agricultural Experiment Station, the Soil Conservation Service,

and the U. S. Forest Products Laboratory. The two-day show was attended by approximately twenty-five hundred persons of whom over eighteen hundred were sawmill owners or operators, farm or other woodland owners, wood-using industry representatives, and foresters. Over two hundred of these were from the adjacent states of Kentucky, Pennsylvania, and Indiana. Some fifty or more attended from the Lake States, Northeast, and South.

Several pieces of equipment were demonstrated for the first time in this region. Among these were the Berger-Reese air tongs for handling small logs. These tongs, manufactured by the Berger Engineering Works of Seattle, Washington, are attached to the dipper arms of any shovel. In operation they grasp logs by air pressure, heeling them against a corrugated plate for ease and safety in loading. The new Mitts and Merrill portable chipper attracted considerable attention. It carries eight knives which revolve against three stationary blades and produces a very uniform chip apparently suitable for pulping. The Carpenter debarker, originally developed by Masonite, has been purchased by the Soderhamn Machinery Company and was demonstrated. It is a portable machine capable of debarking pulpwood sticks up to nine feet in length. It consists of a set of chains on a revolving drum which in effect flay the bark off. It performed satisfactorily on both green and dry material. The new Sawmobile, a highly mobile sawmill built along conventional lines but incorporating many features similar to the Jackson Lumber Harvester, created much interest among sawmill operators from the agricultural sections where custom sawing for farmers involves frequent moves and small volumes.

The two exhibits from the Forest Products Laboratory, the crop drier lumber kiln and the small model sawmill with a duo-kerf blade, attracted more attention than any of the other educational exhibits. George Moore of the Pierson Moore Company of Lexington, Kentucky, the manufacturers of the crop drier used in the demonstration, was very much impressed by the interest exhibited in the demonstration by sawmill operators and by representatives of small wood-using industries. He recently advised us that his company plans to study the potential market possibilities with a view to actively entering this field. The thousands of such units which are available for part-time use in drying small quantities of lumber make this development of particular interest in connection with the very large volume of custom sawing of lumber on farms.

Log-Quality Index Conference.--This meeting was for the purpose of standardizing the several quality indices currently in use throughout the hardwood-producing areas of the eastern United States. Some thirty research workers in this field were invited to participate. In addition to Day, Kenneth Quigley of our Division of Forest Economics, represented this station. Charles Lockard of the Northeastern F.U.S. unit acted as chairman for the technical session on the first day. Full agreement was reached on several controversial issues, including: acceptance of No. 1 common as the base or reference grade; one inch

(4/4) as the reference thickness; and the five-year period 1947-1951 as the base period for calculating grade-price relatives. A number of excellent papers presented at the conference will be processed for limited distribution.

Metal Detection.--Some months ago information was provided to the Draper Corporation, manufacturers of shuttle blocks at Biltmore, North Carolina, on the use of the SCR-625 Army mine detector in locating iron in applewood bolts. A recent letter from this company advises us that in addition to successfully scanning logs at the plant, the detector was also used in the field to locate trees containing metal, thus avoiding the harvesting and transportation of material unsuitable for their purposes.

White Agaric Acid.--At the request of I. V. Anderson, Chief of the F.U.S. unit at Missoula, Montana, a call was made at the Inland Alkaloid Company, Tipton, Indiana, to check on their demands for Fomes conks from western larch as a source for the manufacture of white agaric acid. While this company did purchase a limited quantity of conks several years ago, it is not now manufacturing this chemical in any quantity and does not expect any great demand in the immediate future. According to the General Manager of the plant, domestic demand is quite limited, it is used to some extent in medicine to prevent night sweats. A limited amount is also exported to France where it is used in the production of certain high-grade wines.

New Laminated Decking.--The D. B. Frampton Company of Columbus has developed an edge grain oak decking manufactured from No. 3 common 1" rough lumber by ripping into 1-5/8" random length strips and assembling by metal dowels. Through the unique assembly all exposed surfaces are edge grain, producing a decking with high wear resistance and dimensional stability. Original research was done at TECO. We understand several major installations of this new product have been made, including over 200,000 square feet at the Reading Railroad pier in Philadelphia. This new product is attracting wide interest in the railway industry and among industrial architects and promises to provide a profitable outlet for the company's low-grade hardwoods. We understand they will consider leasing production rights if the product proves up to early expectations.

Preservation. The United States Steel Corporation is making a nationwide survey of potential markets for treated fence posts. Robert Dunn, son of Professor Paul Dunn, Head of the College of Forestry at Corvallis, Oregon, is heading up this survey. As we understand, U. S. Steel is seeking additional commercial outlets for creosote, a by-product at their Pittsburg plant. Mr. Dunn has called on F.U.S. and the survey staff for assistance in connection with this survey.

F.U.S. arranged for the shipment to the F.P.L. of some ninety peeled fence posts, thirty each of sassafras, sycamore, and blackjack oak to be used in research on preservative treatments at the Lab.

Hickory Veneer.--Information provided by Day and Lane of our Carbondale Research Center to Parkwood Laminates Incorporated, Wakefield, Mass., may result in a market for 1/16" rotary-cut hickory veneer. Samples produced by a southern Illinois box plant are being tested for a new laminated product.

Metallurgical Chips.--The Union Carbide Company which is building an additional electro-metallurgical plant at Marietta, Ohio, for the production of ferro-alloys, is interested in sources of wood chips within economical trucking distance of Marietta. Wood chips produced at the D. B. Frampton mill at McArthur some sixty miles from Marietta are now being shipped to Union Carbide's plants at Ashtabula, Ohio, and Niagara Falls, New York.

Pulp and Paper Development.--We have reported earlier on the interest in the development of a pulp and paper mill in the southeastern Missouri Ozarks. More recently the Rolla, Missouri, Chamber of Commerce has been studying the possibilities of a pulp mill in that area. Dr. W. T. Schrenk of the Missouri Schools of Mines in Rolla, is chairman of a committee to investigate the use of low-grade hardwood species common to the Ozarks in the manufacture of kraft and nine-point corrugating paper. F.U.S. and the F.P.L. have both been contacted regarding this study.

Early in October Mr. Joseph J. Fiori, General Manager of Mill Operations of the Stone Container Corporation, and Mr. B. H. Bamer, Plant Superintendent of their Coshocton, Ohio, plant, conferred with Day and with Winters and Morgan of the Division of Forest Economics concerning proposed plans for converting from straw to wood in the manufacture of nine-point corrugating paper at Coshocton. Convinced that semi-chemical wood pulp is both cheaper and better than straw, they have approached their Board of Directors on the need for early conversion. Anticipated consumption would be approximately 30,000 tons per year. Morgan provided them with survey information supporting their belief that there should be little difficulty in locating sources of supply adequate to meet these demands within economical hauling distance of Coshocton. Cooperative studies at the F.P.L. made at Day's suggestion indicated that a satisfactory paper can be made from oak slabs containing as much as 30 percent bark. Mr. Fiori plans on procuring wood from several sources: slabs from sawmills, contract pulpwood cutters, and farmers. Using semi-trailers he believes he can economically haul within a 100-mile radius of the mill.

We understand that the Emigh interests in Cincinnati are planning a \$30,000,000 newsprint paper mill to be established in Portsmouth, Ohio. The first unit is scheduled for completion in 1954. While it is expected the plant will operate chiefly on waste paper and rags, the company is interested in available sources of wood since plans call for using a small percentage of hardwood pulp. A representative of the Portsmouth Chamber of Commerce, which owns the site for the

proposed mill, conferred with Day on this matter of raw materials and also requested information on the disposal of industrial waste. A dam site near the mouth of the Little Scioto River is currently being investigated as a possible source of the estimated 3,500,000 gallons of water required to operate the plant. The plant will be known as the Emigh Ohio Valley Newsprint Company.